

FILEID***GETLIN

E 2

GE
VO

GGGGGGGG	EEEEEEEEE	TTTTTTTTT	LL	IIIIII	NN	NN
GGGGGGGG	EEEEEEEEE	TTTTTTTTT	LL	IIIIII	NN	NN
GG	EE	TT	LL	II	NN	NN
GG	EE	TT	LL	II	NN	NN
GG	EE	TT	LL	II	NNNN	NN
GG	EE	TT	LL	II	NNNN	NN
GG	EEEEEEE	TT	LL	II	NN	NN
GG	EEEEEEE	TT	LL	II	NN	NN
GG	GGGGGG	EE	LL	II	NN	NNNN
GG	GGGGGG	EE	LL	II	NN	NNNN
GG	GG	EE	LL	II	NN	NN
GG	GG	EE	LL	II	NN	NN
GGGGGG	EEEEEEEEE	TT	LLLLLLLLL	IIIIII	NN	NN
GGGGGG	EEEEEEEEE	TT	LLLLLLLLL	IIIIII	NN	NN
LL	IIIIII	SSSSSSS				
LL	IIIIII	SSSSSSS				
LL	IIII	SS				
LL	IIII	SS				
LL	IIII	SS				
LL	IIII	SSSSSS				
LL	IIII	SSSSSS				
LL	IIII	SS				
LL	IIII	SS				
LL	IIII	SS				
LLLLLLLLL	IIIIII	SSSSSSS				
LLLLLLLLL	IIIIII	SSSSSSS				

```
1 0001 0 MODULE getlin ( IDENT = 'V04-000'  
2 0002 0           XBLISS32[, ADDRESSING_MODE (EXTERNAL = LONG_RELATIVE  
3 0003 0           NONEXTERNAL = LONG_RELATIVES)]  
4 0004 0           ) =  
5 0005 1 BEGIN  
6 0006 1 !  
7 0007 1 !  
8 0008 1 *****  
9 0009 1 *  
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28 0028 1 *  
29 0029 1 *****  
30 0030 1 !  
31 0031 1 !  
32 0032 1 ++  
33 0033 1 : FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
34 0034 1 : ABSTRACT: Picks up a line of text and centers it for output.  
35 0035 1 : ENVIRONMENT: Transportable  
36 0036 1 :  
37 0037 1 :  
38 0038 1 :  
39 0039 1 : AUTHOR: R.W.Friday      CREATION DATE: July, 1978  
40 0040 1 :  
41 0041 1 :
```

Revision History

G 2
16-Sep-1984 00:39:00
14-Sep-1984 13:06:31VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]GETLIN.BLI;1Page 2
(2)GET
V04

43 0042 1 XSBTTL 'Revision History'
44 0043 1
45 0044 1 MODIFIED BY:
46 0045 1
47 0046 1 005 KFA00005 Ken Alden 16-Mar-1983
48 0047 1 PUSH/POP_SCA now visible to DSR.
49 0048 1
50 0049 1 004 RER00004 Ron Randall 07-Mar-1983
51 0050 1 Global edit of all modules. Updated module names, idents,
52 0051 1 copyright dates. Changed require files to BLISS library.
53 0052 1
54 0053 1 --
55 0054 1

```
57      0055 1 XSBTTL 'Module Level Declarations'  
58  
59      0056 1 :  
60      0057 1 : TABLE OF CONTENTS:  
61  
62      0058 1 : INCLUDE FILES:  
63  
64      0059 1 : LIBRARY 'NXPORT:XPORT';           ! XPORT Library  
65      0060 1 : REQUIRE 'REQ:RNODEF';            ! RUNOFF variant definitions  
66  
67      0194 1 :  
68      U 0195 1 XIF DSRPLUS XTHEN  
69      U 0196 1 LIBRARY 'REQ:DPLLIB';          ! DSRPLUS BLISS Library  
70      U 0197 1 XELSE  
71      U 0198 1 LIBRARY 'REQ:DSRLIB';          ! DSR BLISS Library  
72      U 0199 1 XFI  
73  
74      0200 1 :  
75      0201 1 : EXTERNAL REFERENCES:  
76  
77      0202 1 : EXTERNAL LITERAL  
78      0203 1 : RINTES : UNSIGNED (8);  
79  
80      0204 1 : EXTERNAL  
81      0205 1 :   GCA : GCA_DEFINITION,  
82      0206 1 :   MRA : REF_FIXED_STRING,  
83      0207 1 :   SCA : SCA_DEFINITION,  
84      0208 1 :   TSF : TSF_DEFINITION,  
85      0209 1 :   TTABLE : COUNTED_LIST;  
86  
87      0210 1 : EXTERNAL ROUTINE  
88      0211 1 :   ENDCHR,  
89      0212 1 :   ENDWRD,  
90      0213 1 :   ERMA,  
91      0214 1 :   ERML,  
92      0215 1 :   OUTNJ,  
93      0216 1 :   SCANT,  
94      0217 1 :   SETCAS;  
95  
96      0218 1 : EXTERNAL LITERAL           !Error messages  
97      0219 1 :   RNFCJL,  
98      0220 1 :   RNFTTL;  
99  
100     0221 1 :  
101     0222 1 :  
102     0223 1 : OWN STORAGE:  
103     0224 1 :  
104     0225 1 :  
105     0226 1 :  
106     0227 1 :  
107     0228 1 :  
108     0229 1 :  
109     0230 1 :  
110     0231 1 :   PP_SCA : $H_R_SCA_BLOCK;    !Used in PUSH_SCA, POP_SCA macros (defined in SCA.REQ).
```

```
105 0232 1 GLOBAL ROUTINE GETLIN (PRESCAN, DO_CASE, TRANSLATION, DO_OUTPUT) : NOVALUE =
106 0233 1
107 0234 1 !++
108 0235 1 FUNCTIONAL DESCRIPTION:
109 0236 1
110 0237 1 Starting with the current position, GETLIN parses up to
111 0238 1 the first ';' or end-of-line; the resulting line is
112 0239 1 centered and output.
113 0240 1
114 0241 1 FORMAL PARAMETERS:
115 0242 1
116 0243 1 PRESCAN - If true, scanning stops when the first ':'
117 0244 1 is found. Otherwise, scanning goes to the
118 0245 1 end of the record.
119 0246 1 DO_CASE - If true, then TRANSLATION indicates which
120 0247 1 case rules are to be applied.
121 0248 1 TRANSLATION -
122 0249 1 DO_OUTPUT - If true, then output the scanned text,
123 0250 1 else, skip output related code.
124 0251 1
125 0252 1 IMPLICIT INPUTS: None
126 0253 1
127 0254 1 IMPLICIT OUTPUTS: None
128 0255 1
129 0256 1 ROUTINE VALUE:
130 0257 1 COMPLETION CODES: None
131 0258 1
132 0259 1 SIDE EFFECTS: None
133 0260 1 !--
134 0261 1
135 0262 2 BEGIN
136 0263 2 LOCAL
137 0264 2 HOLD_TAB_COUNT,
138 0265 2 SCA_HOLD: VECTOR [SCA_SIZE];
139 0266 2
140 0267 2 !Preserve SCA so flags in text don't cause changes
141 0268 2 !to the formatting environment.
142 0269 2
143 0270 2 PUSH_SCA; !Save the Special SAVED SCA bits.
144 0271 2
145 0272 2 INCR I FROM 0 TO SCA_SIZE - 1 DO
146 0273 2 SCA_HOLD [.I] = .SCA [.I];
147 0274 2
148 0275 2 !Set up SCA so SCANT preserves white space; lots of room
149 0276 2 !is provided so a new line doesn't get started unless
150 0277 2 !the user makes an error.
151 0278 2 SCA_FILL = FALSE;
152 0279 2 SCA_JUSTIFY = FALSE;
153 0280 2 SCA_LM = 0;
154 0281 2 SCA_RM = 150; !Maximum width line.
155 0282 2 SCA_PRESCAN = .PRESCAN; !Indicate when processing stops.
156 0283 2
157 0284 2 IF .DO_CASE
158 0285 2 THEN SETCAS (.TRANSLATION); !Establish specified case rules.
159 0286 2
160 0287 2
161 0288 2 !Preserve tab count; temporarily set it to zero
```

```
162      0289 2      !so tabs get treated like spaces.  
163      0290 2      HOLD_TAB_COUNT = .TTABLE [CL_INDEX];  
164      0291 2      TTABE [CL_INDEX] = 0;  
165      0292 2  
166      0293 2      SCANT (); !Scan one input line.  
167      0294 2  
168      0295 2      ! Drop trailing spaces, unless at least one of them is  
169      0296 2      ! underlined. SCA_WRD_CPEND is equal to RINTES if a space/tab  
170      0297 2      ! was encountered after the last character on the line.  
171      0298 2  
172      0299 2      IF .SCA_WRD_CPEND EQL RINTES  
173      0300 2  
174      0301 2  
175      0302 2      IF .SCA_WRD_LST_UND EQL 0  
176      0303 2      THEN  
177      0304 2      !None of the trailing spaces were underlined.  
178      0305 2      !This means that it is safe to drop them.  
179      0306 2      SCA_WRD_LST_SP = 0;  
180      0307 2  
181      0308 2      !The call on ENDWRD is made here, rather than letting  
182      0309 2      OUTNJ do it. The reason it's done here is so that  
183      0310 2      TSF_EXT_HL gets updated, so that the length of the  
184      0311 2      text can be obtained.  
185      0312 2      ENDWRD (FALSE, FALSE, FALSE);  
186      0313 2  
187      0314 2      !Check to see that the text retrieved is not too long  
188      0315 2      IF .TSF_EXT_HL GTR .GCA_LWIDTH  
189      0316 2      THEN  
190      0317 3      BEGIN  
191      0318 3      ERMA (RNFTTL, FALSE); !Text cannot possibly be centered  
192      0319 3      TSF_EXT_HL = 0; !Fix up TSF_EXT_HL. The entire line still gets printed.  
193      0320 2      END;  
194      0321 2  
195      0322 2      !Restore SCA so actual margins can be used.  
196      0323 2      INCR I FROM SCA_CASE_SIZE TO SCA_SIZE - 1 DO      !NOTE: modified case rules "play through".  
197      0324 2      SCA [.I] = :SCA_ROLD [.I];  
198      0325 2  
199      0326 2      POP_SCA; !Restore the special SAVED SCA bits.  
200      0327 2  
201      0328 2      TTABLE [CL_INDEX] = .HOLD_TAB_COUNT;          !Restore tab count  
202      0329 2  
203      0330 2      IF NOT .DO_OUTPUT ! If output was not wanted,  
204      0331 2      THEN RETURN; ! it best we return now. Otherwise, proceeding  
205      0332 2      ! beyond here will generate output.  
206      0333 2  
207      0334 2      !Compute and validate number of spaces that have to  
208      0335 2      !be inserted on the left to center the line  
209      0336 2      TSF_ADJUST = .SCA_LM + (.SCA_RM - .SCA_LM - .TSF_EXT_HL)/2;  
210      0337 2  
211      0338 2      IF .TSF_ADJUST LSS 0  
212      0339 2      THEN  
213      0340 3      BEGIN  
214      0341 3      ERML (RNFCJL); !It's not possible to center the line.  
215      0342 3      TSF_ADJUST = 0; !Setting tsf_adjust to zero causes the line  
216      0343 2      END; !to go out against the left edge of the page.  
217      0344 2  
218      0345 2      !Force out the line of text
```

: 219
: 2200346 2 OUTNJ ();
0347 1 END;

!End of GETLIN

```

.TITLE GETLIN
.IDENT \V04-000\

.PSECT $OWNS,NOEXE,2

00000 PP_SCA: .BLKB 48

.EXTRN RINTES, GCA, MRA
.EXTRN SCA, TSF, TTABLE
.EXTRN ENDCHR, ENDWRD, ERMA
.EXTRN ERML, OUTNJ, SCANT
.EXTRN SETCAS, RNFCJL, RNFTTL

.PSECT $CODE$,NOWRT,2

0232
      56 00000000G 007C 00000 .ENTRY GETLIN, Save R2,R3,R4,R5,R6
      55 00000000G EF 9E 00002 MOVAB TTABLE+4, R6
      54 00000000' EF 9E 00009 MOVAB TSF, R5
      53 00000000G EF 9E 00010 MOVAB PP_SCA, R4
      SE FE80 CE 9E 0001E MOVAB SCA+116, R3
      64 F0 B3 D0 00023 MOVL @SCA+100, PP_SCA
      04 A4 F4 B3 D0 00027 MOVL @SCA+104, PP_SCA+4
      08 A4 F8 B3 D0 0002C MOVL @SCA+108, PP_SCA+8
      0C A4 FC B3 D0 00031 MOVL @SCA+112, PP_SCA+12
      10 A4 00 B3 D0 00036 MOVL @SCA+116, PP_SCA+16
      14 A4 04 B3 D0 0003B MOVL @SCA+120, PP_SCA+20
      18 A4 08 B3 D0 00040 MOVL @SCA+124, PP_SCA+24
      1C A4 0C B3 D0 00045 MOVL @SCA+128, PP_SCA+28
      20 A4 10 B3 D0 0004A MOVL @SCA+132, PP_SCA+32
      24 A4 14 B3 D0 0004F MOVL @SCA+136, PP_SCA+36
      28 A4 18 B3 D0 00054 MOVL @SCA+140, PP_SCA+40
      2C A4 1C B3 D0 00059 MOVL @SCA+144, PP_SCA+44
      50 D4 0005E CLRL I
      6E40 8C A340 D0 00060 1$: MOVL SCA[I], SCA_HOLD[I]
      F2 50 0000005F 8F F3 00066 AOBLEQ #95, I 1$ 0273
      F4 B3 D4 0006E CLRL @SCA+104 0278
      F0 B3 D4 00071 CLRL @SCA+100 0279
      00 B3 D4 00074 CLRL @SCA+116 0280
      04 B3 96 8F 9A 00077 MOVZBL #150, @SCA+120 0281
      38 A3 04 AC D0 0007C MOVL PRESCAN, SCA+172 0282
      0A 08 AC E9 00081 BLBC DO CASE, 2$ 0284
      OC AC DD 00085 PUSHL TRANSLATION 0286
      00000000G EF 01 FB 00088 CALLS #1, SETCAS
      52 66 D0 0008F 2$: MOVL TTABLE+4, HOLD_TAB_COUNT 0290
      66 D4 00092 CLRL TTABLE+4 0291
      00000000G EF 00 FB 00094 CALLS #0, SCANT 0293
      00000000G 8F ..JA4 C3 D1 0009B CMPL SCA+280, #RINTES 0299
      00E0 C3 D5 000A6 BNEQ 3$ 0302
      00D8 C3 D4 000AC TSTL SCA+340
      7E 7C 000B0 3$: BNEQ 3$ 0306
      CLRL SCA+332
      CLRQ -(SP) 0312

```

			7E	D4	000B2		CLRL	-(SP)
00000000G	EF		03	FB	000B4		CALLS	#3, ENDWRD
	50		65	DD	000BB		MOVL	TSF, R0
00000000G	FF	04	A0	D1	000BE		CMPL	4(R0), @GCA+140
			15	15	000C6		BLEQ	4\$
			7E	D4	000C8		CLRL	-(SP)
00000000G	EF	00000000G	8F	DD	000CA		PUSHL	#RNFTL
	50		02	FB	000D0		CALLS	#2, ERMA
F2			65	DD	000D7		MOVL	TSF, R0
			A0	D4	000DA		CLRL	4(R0)
	50	04	19	DD	000DD	4\$:	MOVL	#25, I
8C A340		6E40	00	DD	000E0	5\$:	MOVL	SCA_HOLD[I], SCA[I]
	50	0000005F	8F	F3	000E6		AOBLEQ	#95, I, 5\$
F0 B3			64	DD	000EE		MOVL	PP-SCA, @SCA+100
F4 B3		04	A4	DD	000F2		MOVL	PP-SCA+4, @SCA+104
F8 B3		08	A4	DD	000F7		MOVL	PP-SCA+8, @SCA+108
FC B3		0C	A4	DD	000FC		MOVL	PP-SCA+12, @SCA+112
00 B3		10	A4	DD	00101		MOVL	PP-SCA+16, @SCA+116
04 B3		14	A4	DD	00106		MOVL	PP-SCA+20, @SCA+120
08 B3		18	A4	DD	0010B		MOVL	PP-SCA+24, @SCA+124
0C B3		1C	A4	DD	00110		MOVL	PP-SCA+28, @SCA+128
10 B3		20	A4	DD	00115		MOVL	PP-SCA+32, @SCA+132
14 B3		24	A4	DD	0011A		MOVL	PP-SCA+36, @SCA+136
18 B3		28	A4	DD	0011F		MOVL	PP-SCA+40, @SCA+140
1C B3		2C	A4	DD	00124		MOVL	PP-SCA+44, @SCA+144
	66		52	DD	00129		MOVL	HOLD TAB COUNT, TTABLE+4
	32		10	AC	E9 0012C		BLBC	DO OUTPUT, 7\$
	50		65	DD	00130		MOVL	TSF, R0
51	04	B3	00	B3	C3 00133		SUBL3	@SCA+116, @SCA+120, R1
	51		04	A0	C2 00139		SUBL2	4(R0), R1
	51		02	C6	0013D		DIVL2	#2, R1
A0	51	00	B3	C1	00140		ADDL3	@SCA+116, R1, 40(R0)
			13	18	00146		BGEQ	6\$
00000000G	EF	00000000G	8F	DD	00148		PUSHL	#RNFCJL
	50		01	FB	0014E		CALLS	#1, ERML
			65	DD	00155		MOVL	TSF, R0
		28	A0	D4	00158		CLRL	40(R0)
00000000G	EF		00	FB	0015B	6\$:	CALLS	#0, OUTNJ
			04	00162	7\$:		RET	

; Routine Size: 355 bytes, Routine Base: \$CODE\$ + 0000

: 221 0348 1
: 222 0349 1 END !End of module
: 223 0350 0 ELUDOM

PSECT SUMMARY

Name	Bytes	Attributes
S0WNS	48	NOVEC, WRT, RD ,NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

GETLIN
V04-000

Module Level Declarations

M 2
16-Sep-1984 00:39:00
14-Sep-1984 13:06:31

VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]GETLIN.BLI;1

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(4)

: \$CODES

355 NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

GE1
VO4

Library Statistics

File	----- Symbols -----	Total	Loaded	Percent	Pages Mapped	Processing Time
-\$255\$DUA28:[SYSLIB]XPORT.L32;1	550	0	0	0	252	00:00.2
-\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32;1	1248	47	3	86		00:00.3

COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LISS:GETLIN/OBJ=OBJ\$:GETLIN MSRC\$:GETLIN/UPDATE=(ENHS:GETLIN)

: Size: 355 code + 48 data bytes

: Run Time: 00:09.6

: Elapsed Time: 00:28.8

: Lines/CPU Min: 2185

: Lexemes/CPU-Min: 18293

: Memory Used: 95 pages

: Compilation Complete

0342 AH-BT13A-SE
VAX/VMS V4.0

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